UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,876,315 B1 DATED : April 5, 2005

INVENTOR(S) : Widmer

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page,

Item [57], ABSTRACT,

Line 2, before "format" and after "an" replace "eight-hit" with -- eight-bit --.

Column 7.

Lines 11-12, replace

$$a = A \bullet (\overline{A}B \bullet E \bullet F \bullet C \oplus D + \overline{A} \bullet B \bullet C \bullet D \bullet E \oplus F + \overline{A} \bullet B \bullet C \bullet D \bullet E \bullet F)' +$$

$$\overline{A} \bullet B' \bullet E' \bullet F' \bullet C \oplus D + \overline{A}' \bullet B' \bullet C' \bullet D' \bullet E \oplus F + \overline{A}' \bullet B' \bullet C' \bullet D' \bullet E' \bullet F'$$

with

$$a = A \circ (\overline{A} \circ B \circ E \circ F \circ C \oplus D + \overline{A} \circ B \circ C \circ D \circ E \oplus F + \overline{A} \circ B \circ C \circ D \circ E \circ F)' + \overline{A} \circ B' \circ E' \circ F' \circ C \oplus D + \overline{A}' \circ B' \circ C' \circ D' \circ E \oplus F + \overline{A}' \circ B' \circ C' \circ D' \circ E' \circ F'$$

Column 8,

Line 1, replace

"
$$e = E \bullet (C \bullet D \bullet \overline{E} \bullet F \bullet A \oplus B + A \bullet B \bullet C \bullet D \bullet \overline{E} \bullet F) + C \bullet D \bullet F \bullet A \oplus B + A \bullet B \bullet C \bullet D \bullet F$$
"

with

$$e = E \bullet (C \bullet D \bullet \overline{E} \bullet F \bullet A \oplus B + A \bullet B \bullet C \bullet D \bullet \overline{E} \bullet F)' + \cdots$$

$$C \bullet D \bullet \overline{E} \bullet F \bullet A \oplus B + A \bullet B \bullet C \bullet D \bullet \overline{E} \bullet F'$$

Column 10,

Line 26, replace

"
$$e = E \oplus \{(E \oplus \overline{F}!) \bullet (C \oplus D! \bullet D \oplus E! \bullet A \oplus B! \bullet B \oplus C!)\}$$
"

with

$$e = E \oplus \{(C \oplus D' \bullet D \oplus \overline{E}' \bullet \overline{E} \oplus F') \bullet \overline{C} \oplus B \oplus C'\}$$

Line 61, replace " $\overline{a} \cdot b' \cdot e \cdot f \cdot g \cdot h' \cdot c \oplus d + \overline{a}$ "

with -
$$\overline{a} \cdot b' \cdot e' \cdot f \cdot g \cdot h' \cdot c \oplus d + \overline{a} - \overline{a}$$

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INVENTOR(S) : Widmer

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 11,

Line 8, replace

" $n3 = \overline{a} \circ b' \circ c' \circ d \circ e \circ f' \circ g \circ h' + \overline{a} \circ b' \circ e' \circ f \circ g \circ h' \circ c \oplus d + \overline{a} \circ b \circ c' \circ d' \circ d' \circ g \circ h' \circ e \oplus f$ " with

 $\overline{a} = \overline{a} \cdot b' \cdot c' \cdot d \cdot e \cdot f' \cdot g \cdot h' + \overline{a} \cdot b' \cdot e' \cdot f \cdot g \cdot h' \cdot c \oplus d + \overline{a} \cdot b \cdot c' \cdot d' \cdot g \cdot h' \cdot e \oplus f \stackrel{--}{}$

Line 20, replace

$$B - b \bullet (a \bullet \overline{b} \bullet c' \bullet d' \bullet h' \bullet e \oplus f)' + a' \bullet \overline{b}' \bullet c \bullet d \bullet g \bullet h' \bullet e \oplus f$$

with

$$\overline{B} = b \bullet (a \bullet \overline{b} \bullet c' \bullet d' \bullet g \bullet h' \bullet e \oplus f)' + a' \bullet \overline{b}' \bullet c \bullet d \bullet g \bullet h' \bullet e \oplus f$$

Line 33, replace

"'C =
$$c \cdot (a' \cdot b' \cdot d' \cdot e \cdot f \cdot g \cdot h)' + a \cdot b \cdot d \cdot e' \cdot f' \cdot g \cdot h'$$
"

with

$$C = c \bullet (a' \bullet b' \bullet d' \bullet e \bullet f \bullet g \bullet h')' + a \bullet b \bullet d \bullet e' \bullet f' \bullet g \bullet h'$$

Column 12,

Line 14, before "D132" and after "D116," replace "D1 15," with -- D115, --.

Lines 26-27, replace

$$F = f \circ (c' \circ d' \circ \bar{f} \circ g \circ h' \circ a \oplus b + a \circ b' \circ e' \circ \bar{f} \circ g \circ h' \circ c \oplus d)' + + c \circ d \circ e' \circ \bar{f}' \circ g \circ h' \circ a \oplus b + a' \circ b \circ e \circ \bar{f}' \circ g \circ h' \circ c \oplus d$$

with

$$F = f \bullet (c' \bullet d' \bullet e \bullet \overline{f} \bullet g \bullet h' \bullet a \oplus b + a \bullet b' \bullet e' \bullet \overline{f} \bullet g \bullet h' \bullet c \oplus d)' + \overline{c} \bullet d \bullet e' \bullet \overline{f}' \bullet g \bullet h' \bullet a \oplus b + a' \bullet b \bullet e \bullet \overline{f}' \bullet g \bullet h' \bullet c \oplus d$$

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INVENTOR(S) : Widmer

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 12 (cont'd),

Line 33, replace

"
$$n52 = c' \circ d' \circ e \circ \overline{f} \circ g \circ h' \circ a \oplus b + a \circ b' \circ e' \circ f \circ gh' \circ c \oplus d$$
"

with

$$n52 = c' \bullet d' \bullet e \bullet \bar{f} \bullet g \bullet h' \bullet a \oplus b + a \bullet b' \bullet e' \bullet \bar{f} \bullet g \bullet h' \bullet c \oplus d^{--}$$

Line 68, replace

"
$$n64 = g \bullet h \bullet e \oplus f + e' \bullet f' \bullet g \oplus h$$
"

with

$$n64 = g' \bullet h' \bullet e \oplus f + e' \bullet f' \bullet g \oplus h$$

Column 13,

Lines 28-29, replace

"
$$A = a \oplus \{(e \oplus f \circ g \circ h) \circ (\overline{a} \oplus b \circ b \oplus c' \circ c \oplus d \circ d \oplus e' + \overline{a} \oplus b \circ b \oplus e' \circ c \oplus d + \cdots \overline{a} \oplus b' \circ b \oplus c \circ c \oplus d')\}$$

with

$$A = a \oplus \{(e \oplus f \bullet g \bullet h') \bullet (\overline{a} \oplus b \bullet b \oplus c' \bullet c \oplus d \bullet d \oplus e' + \overline{a} \oplus b \bullet b \oplus e' \bullet c \oplus d + \overline{a} \oplus b' \bullet b \oplus c \bullet c \oplus d')\}$$

Line 34, replace

"
$$D = d \oplus (a \oplus b \bullet b \oplus c'c \oplus \overline{d} \bullet \overline{d} \oplus e' \bullet e \oplus f \bullet g \bullet h')$$
"

with

$$D = d \oplus (a \oplus b \bullet b \oplus c' \bullet c \oplus \overline{d} \bullet \overline{d} \oplus e' \bullet e \oplus f \bullet g \bullet h')$$

UNITED STATES PATENT AND TRADEMARK OFFICE **CERTIFICATE OF CORRECTION**

PATENT NO. : 6,876,315 B1 **DATED**

: April 5, 2005

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INVENTOR(S) : Widmer

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 13 (cont'd),

Line 42, replace

 $(a \oplus b \bullet c \oplus d' + a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \bullet h' + e \oplus f'$

 $(a \oplus b \bullet c \oplus d' + a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \bullet g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \oplus g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \oplus g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \oplus g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \oplus g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \oplus g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \oplus g \oplus h' + e \oplus f' - a \oplus b' \bullet c \oplus d) \bullet (e \oplus f \oplus g \oplus h' + e \oplus f' - a \oplus b' \oplus b' - a \oplus b' - a \oplus b' \oplus b' - a \oplus b' \oplus b' - a \oplus b'$

Line 51, after "e.g.," replace "2xfNV" with -- 2xINV --.

Signed and Sealed this

Thirteenth Day of September, 2005

JON W. DUDAS Director of the United States Patent and Trademark Office